The term side curtain airbag is just as well known by those skilled in the art. A simple search of the internet for the term gives thousands of hits and numerous companies that manufacture and sell "side curtain airbag" modules. Again, applicant asserts that one skilled in the art would be familiar with this term, and, thus, the term is not vague and indefinite.

Claims 1-8 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Lewis et al. (U.S. 6,422,512) in view of Schneider (U.S. 6,471,242). Specifically, the examiner indicates that Lewis et al. discloses a method for providing an airbag module to protect a pilot's lower limbs at the beginning of an ejection sequence that includes both a side and a front airbag. The examiner further indicates that Schneider discloses that an airbag can be deployed on an instrument panel and that combining this teaching with Lewis et al. would provide the present invention and would be obvious to one skilled in the art.

Applicant respectfully traverses via the following remarks. The Lewis et al. reference discloses an airbag restraint system that is designed to securely position a pilot within his seat prior to ejection of said seat. This system was designed to mitigate the result of air blasts or wind blasts causing the pilot's limbs to flail during seat ejection. Therefore, the system operates by encircling the pilot, ensuring that the pilot's limbs are unable to move during ejection. While this is a method that may mitigate the toe-strike problem being obviated by the present invention, a completely different method is used than the present invention that includes inherent problems not found within the present invention. By providing the restraint described in the Lewis et al. reference, one inherently adds a step to the ejection process. The restraint must be somehow discarded before the pilot can successfully separate from the seat and parachute to the ground. This removal step is a potential delaying action that could affect parachute release and pilot survival.

The Schneider reference discloses the use of an airbag within an automobile that is attached to the console as the examiner suggests. The Schneider system is designed to protect an automobile driver from a phenomena known as "submarining" which is described as sliding forward in the automobile seat and sliding under the torso airbag. This "submarining" occurs as a result of the driver not wearing a seat belt or the seat belt not providing the necessary restraint for the driver.

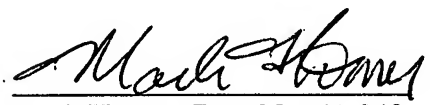
Applicant asserts that there is no impetus to combine the above references as the examiner suggests, and, further, it would not be technically sound to do so. First, the Lewis et al. reference is designed as a restraint system. If one were to replace the airbag restraint attached to the seat in Lewis et al. with the console airbag disclosed in Schneider, the system would no longer be a restraint system, and, therefore, would not operate as defined within the Lewis et al. disclosure. Second, one would also never merely add the console airbag to the Lewis et al. system because it would provide no function as the Lewis et al. system already provides airbag coverage over the lower extremities of the pilot as described above.

Third, there would be no impetus to use the Schneider reference within a toe-strike mitigation system, as in the present invention, because the Schneider system was designed to protect a driver from submarining under a torso airbag and not for any type of ejection seat. Submarining is not an issue in aircraft due to the use of four or five point harnesses by pilots (versus the three point harnesses/seat belts used in automobiles). Also, submarining is caused by a rapid stop in an automobile and such a stop does not occur in aircraft in an ejection scenario. Because the present invention uses the airbag to protect a pilot's lower extremities when the pilot's body is being ejected in an upward motion, this is a completely different type of protection than the submarining action discussed within the reference noted above.

Therefore, because it would be technically unsound to combine the references and there is no impetus to modify the references to obtain the present invention, applicant asserts that the present invention is not obvious in view of these references.

Accordingly, applicant believes that claims 1-8 are in condition for allowance and respectfully requests the examiner to withdraw all objections and rejections and allow said claims. Should the examiner need more information regarding this matter or have further suggestions regarding this application, feel free to call the undersigned at 301-744-5603.

Respectfully submitted,



Mark Homer, Reg. No. 41,848
Attorney for Applicants

OFFICE OF PATENT COUNSEL, CODE OC4
NAVAL SURFACE WARFARE CENTER
INDIAN HEAD DIVISION
101 STRAUSS AVE., BLDG. D-31
INDIAN HEAD, MD 20640